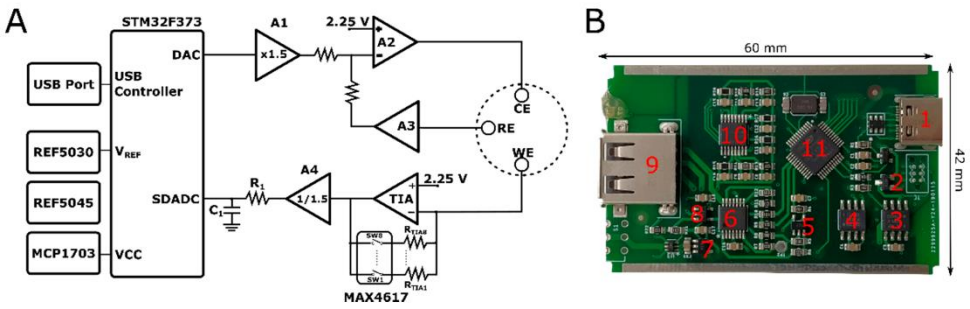
A Multi-purpose Embedded potentiostat for Medical Application based on STM32

Project type: ☐ Hardware ☐ Software ■ Hardware/Software ☐ Simulation ☐ Modelling

This project aims to design and develop a prototype potentiostat that incorporates an embedded target detection system. By integrating electrochemical sensing with embedded electronics, the proposed system provides a multifunctional platform for real-time detection of various targets such as biomolecules, contaminants, or chemical analytes. The project includes hardware design, software development, and application-specific testing to validate the prototype potentiator's performance and applicability.



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Tasks

- Design a circuit for electrochemical measurements, e.g. (cyclic voltammetry)
- Try to investigate the interfacing of data transfer via USB or Bluetooth
- Introduce an electronic circuit demonstrator design
  Scientific and technical reporting through documentation.

Requirements

- Basics in experimental electrical circuits.
- Excellent communication and collaborative skills
- An ability to plan and organize scientific work and laboratory experiments.

Contact:
Aseel Alnaimi
Reichenhainer Straße 70, Weinholdbau: W283
Email: naimi@hrz.tu-chemnitz.de